IN THE CLAIMS:

1. (Withdrawn) A portable concrete plant for preparing ready mix concrete, the portable concrete plant comprising:

a frame having at least one set of wheels attached thereto for supporting the frame above a ground surface and permitting the frame to be moved along the ground surface;

a cement storage region attached to the frame, wherein the cement storage region stores cement, and wherein the cement storage region has a cement entry port and cement exit port;

a sand storage region attached to the frame, wherein the sand storage region stores sand, and wherein the sand storage region has a sand entry port and a sand exit port;

a rock storage region attached to the frame, wherein the rock storage region stores rock, and wherein the rock storage region has a rock entry port and a rock exit port;

a water storage region attached to the frame, wherein the water storage region stores water, and wherein the water storage region has a water entry port and a water exit port;

a slurry mixer attached to the frame, wherein slurry mixer has a slurry mixer entry port and a slurry mixer exit port, wherein the cement exit port and the water exit port are operably connected to the slurry mixer entry port, wherein the slurry mixer prepares a slurry from cement and water;

a first conveyor system attached to the frame, wherein the first conveyor system receives rock from rock exit port and sand from the sand exit port and transports the rock and sand to a system exit port; and

a second conveyor system attached to the frame, wherein the second conveyor system receives slurry from the slurry mixer exit port and transports the slurry to the system exit port, wherein the first conveyor system and the second conveyor system intersect proximate the system exit port to cause the slurry to be mixed with the sand and the rock for preparing the ready mix concrete.

2. (Withdrawn) The portable concrete plant of claim 1, and further comprising:

a cement weight monitoring mechanism operably attaching the cement storage region to the frame; and

a sand weight monitoring mechanism operably attaching the sand storage region to the frame;

a rock weight monitoring mechanism operably attaching the rock storage region to the frame; and

a water weight monitoring mechanism operably attaching the water storage region to the frame.

3. (Withdrawn) The portable concrete plant of claim 1, wherein the slurry mixer comprises:

an outer enclosure;

a first stirring apparatus fixedly mounted to the outer enclosure; and

a second stirring apparatus rotatably mounted in the outer enclosure.

4. (Withdrawn) The portable concrete plant of claim 3, wherein the slurry mixer has a self-cleaning configuration in which the first stirring apparatus and the second stirring apparatus clean each other and the second stirring apparatus cleans an inner surface of the outer enclosure as the second stirring apparatus is rotated in the outer enclosure.

5. (Withdrawn) The portable concrete plant of claim 3, wherein the second stirring apparatus rotates about a substantially vertically oriented axis.

6. (Withdrawn) The portable concrete plant of claim 1, and further comprising a mixing apparatus mounted proximate the system exit port for mixing together the rock, sand and slurry.

7. (Withdrawn) The portable concrete plant of claim 6, wherein the mixing apparatus imparts a swirling motion to the rock, sand and slurry as the rock, sand and slurry pass through the mixing apparatus.

8. (Withdrawn) The portable concrete plant of claim 1, and further comprising a dust collection system attached to the frame, wherein the dust collection system collects dust generated by moving the cement in the portable concrete plant.

9. (Withdrawn) The portable concrete plant of claim 8, wherein the dust collection system has a self-cleaning configuration such that dust collected in the dust collection system is transferred to the slurry mixer or to a disposal region.

10. (Withdrawn) The portable concrete plant of claim 1, and further comprising a second cementuous component storage region attached to the frame, wherein the second cementuous component storage region stores a second cementuous component, and wherein the second cementuous component storage region has a second cementuous component entry port and a second cementuous component exit port, wherein the second cementuous component exit port is operably attached to the slurry mixer entry port.

11. (Withdrawn) The portable concrete plant of claim 1, wherein the cement storage region, the sand storage region, the rock storage region, and the water storage region each include a load cell for continuously measuring the weight of components therein.

12. (Withdrawn) The portable concrete plant of claim 1, and further comprising an internal combustion engine attached to the frame for powering the operation of the portable concrete plant.

13. (Withdrawn) The portable concrete plant of claim 1, and further comprising a heat exchanging apparatus attached to the frame, wherein the heat exchanging apparatus heats water being delivered to the water storage region and cools hydraulic oil used to operate the components in the portable concrete plant.

14. (Withdrawn) The portable concrete plant of claim 1, and further comprising a control room attached to the frame, wherein the control room includes controls for controlling the operation of the portable concrete plant.

15. (Withdrawn) A system for preparing ready mix concrete, the system comprising:

a portable concrete plant comprising:

a frame having at least one set of wheels attached thereto for supporting the frame above a ground surface and permitting the frame to be moved along the ground surface;

a cement storage region attached to the frame, wherein the cement storage region has a cement entry port and a cement exit port;

a sand storage region attached to the frame, wherein the sand storage region has a sand entry port and a sand exit port;

a rock storage region attached to the frame, wherein the rock storage region has a rock entry port and a rock exit port;

a water storage region attached to the frame, wherein the water storage region has a water entry port and a water exit port;

a slurry mixer attached to the frame, wherein slurry mixer has a slurry mixer entry port and a slurry mixer exit port, wherein the cement exit port and the water exit port are operably connected to the slurry mixer entry port, wherein the slurry mixer prepares a slurry from cement and water;

a first conveyor system attached to the frame, wherein the first conveyor system receives rock from rock exit port and sand from the sand exit port and transports the rock and sand to a system exit port; and

a second conveyor system attached to the frame, wherein the second conveyor system receives slurry from the slurry mixer exit port and transports the slurry to the system exit port; and

a truck that receives the rock, sand, and slurry from the system exit port, wherein the truck mixes the rock, sand and slurry together to produce ready mix concrete, and wherein the truck transports the ready mix concrete to a location where the ready mix concrete is to be used.

16. (Withdrawn) The system of claim 15, and further comprising:

a cement weight monitoring mechanism operably attaching the cement storage region to the frame; and

a sand weight monitoring mechanism operably attaching the sand storage region to the frame;

a rock weight monitoring mechanism operably attaching the rock storage region to the frame; and

a water weight monitoring mechanism operably attaching the water storage region to the frame.

17. (Withdrawn) The system of claim 15, wherein the slurry mixer comprises:

an outer enclosure;

a first stirring apparatus fixedly mounted to the outer enclosure; and

a second stirring apparatus rotatably mounted in the outer enclosure.

18. (Withdrawn) The system of claim 17, wherein the slurry mixer has a self-cleaning configuration in which the first stirring apparatus and the second stirring apparatus clean each other and the second stirring apparatus cleans an inner surface of the outer enclosure as the second stirring apparatus is rotated in the outer enclosure.

19. (Withdrawn) The system of claim 15, and further comprising a mixing apparatus mounted proximate the system exit port for mixing together the rock, sand and slurry.

20. (Withdrawn) The system of claim 19, wherein the mixing apparatus imparts a swirling motion to the rock, sand and slurry as the rock, sand and slurry pass through the mixing apparatus.

21. (Withdrawn) The system of claim 15, and further comprising a dust collection system attached to the frame, wherein the dust collection system collects dust generated by moving the cement in the portable concrete plant.

22. (Withdrawn) The system of claim 21, wherein the dust collection system has a self-cleaning configuration such that dust collected in the dust collection system is transferred to the slurry mixer or to a disposal region.

23. (Withdrawn) The system of claim 15, and further comprising a control room attached to the frame, wherein the control room includes controls for controlling the operation of the portable concrete plant.

24. (Withdrawn) A method for preparing ready mix concrete, the method comprising:

providing a frame having at least one set of wheels attached thereto for supporting the frame above a ground surface and permitting the frame to be moved along the ground surface;

storing cement in a cement storage region, wherein the cement storage region is attached to the frame, wherein the cement storage region has a cement entry port and a cement exit port;

storing sand in a sand storage region, wherein the sand storage region is attached to the frame, wherein the sand storage region has a sand entry port and a sand exit port;

storing rock in a rock storage region, wherein the rock storage region is attached to the frame, wherein the rock storage region has a rock entry port and a rock exit port;

storing water in a water storage region, wherein the water storage region is attached to the frame, wherein the water storage region has a water entry port and a water exit port;

mixing cement and water in a slurry mixer to prepare a slurry, wherein the slurry mixer is attached to the frame, wherein slurry mixer has a slurry mixer entry port and a slurry mixer exit port, wherein the cement exit port and the water exit port are operably connected to the slurry mixer entry port;

conveying rock and sand from the rock exit port and the sand exit port to a system exit port with a rock conveyor system, wherein the rock conveyor system is attached to the frame; and

conveying slurry from the slurry mixture exit port to the system exit port with a sand conveyor system, wherein the sand conveyor system is attached to the frame.

25. (Withdrawn) The method of claim 24, and further comprising collecting dust generated by conveying the cement into the cement storage region and feeding the collected dust into the slurry mixer.

26. (Withdrawn) The method of claim 24, wherein the slurry mixer includes a self cleaning paddle system that is rotatable about a vertically oriented axis.

27. (Withdrawn) The method of claim 24, wherein conveying the slurry from the slurry mixture exit port to the system exit port comprises:

moving the slurry out of the slurry mixer with a rotating auger;

moving the slurry delivered from the rotating auger to a manifold with a centrifugal pump; and

moving the slurry from the manifold to the system exit port with at least one slurry pump.

28. (Currently amended) A slurry mixer for preparing slurry, the slurry mixer comprising:

a substantially cylindrical side wall with a lower end and an upper end;

a base wall enclosing the lower end of the side wall and defining a mixing region in which the slurry is prepared;

a top ~~wall~~ cover enclosing the upper end of the side wall;

a first stirring apparatus fixedly mounted in the mixing region, wherein the first stirring apparatus has a plurality of upper mixing members that extend from the ~~upper member~~ top cover; and

a second stirring apparatus rotatably mounted in the mixing region, wherein the second stirring apparatus has a lower support member and a plurality of lower mixing members that extend from the lower support member, wherein the upper mixing members and the lower mixing members at least partially engage each other as the second stirring apparatus is rotated to remove slurry therefrom, and wherein at least

one of the lower mixing members fully engage the side wall as the second stirring apparatus is rotated to remove slurry from the side wall.

29. (Currently amended) The slurry mixer of claim 28, wherein at least one of the plurality of ~~lower~~ upper mixing members engages the ~~base wall~~ lower support member as the second stirring apparatus is rotated.

30. (Canceled)

31. (Previously presented) The slurry mixer of claim 28, wherein the upper mixing members are offset from the lower mixing members so that the upper mixing members pass between the lower mixing members as the second stirring apparatus is rotated.

32. (Original) The slurry mixer of claim 31, wherein the upper mixing members and the lower mixing members engage each other as they move passed each other to remove slurry therefrom.

33. (Original) The slurry mixer of claim 28, and further comprising a dispensing auger positioned in the mixing region proximate the base wall for dispensing slurry from the mixing region.

34. (Original) The slurry mixer of claim 28, and further comprising a motor operably connected to the second stirring apparatus for rotating the second stirring apparatus.

35. (Canceled)

36. (Previously presented) The slurry mixer of claim 28, wherein the top wall has a cement feed port, a water feed port and an admixture feed port.

37. (Previously presented) The slurry mixer of claim 28, and further comprising a dust collection apparatus operably connected to the slurry mixer.

38. (Withdrawn) A flow control device for controlling the flow of material through an opening, the flow control device comprising:

a rotatable paddle element mounted with respect to the opening; and

a pivotable gate element mounted with respect to the opening, wherein the gate element is pivotable between an open position and a closed position, when in the closed position, the paddle element and the gate element are adjacent each other to prevent the material from flowing through the opening.

39. (Withdrawn-Currently amended) The flow control device of claim ~~0~~ 38, wherein the paddle element is rotatable about a rotational axis that is parallel to and offset from a pivot axis about which the gate element is pivotable.

40. (Withdrawn-Currently amended) The flow control device of claim ~~0~~ 38, wherein the paddle element has a plurality of paddles extending therefrom.

41. (Withdrawn-Currently amended) The flow control device of claim ~~0~~ 38, wherein the paddle element is rotatable about a rotational axis that is substantially parallel to a direction in which the material flows through the opening.

42. (Withdrawn) A method of preparing ready mix concrete, the method comprising:

storing cement in a cement storage region;

storing sand in a sand storage region;

storing rock in a rock storage region;

heating water with a heating apparatus;

storing the heated water in an insulated storage region, wherein the insulated storage region has sufficient size to store heated water for at least two batches of ready mix concrete; and

mixing cement, sand, rock and heated water to prepare a batch of ready mix concrete.

43. (Withdrawn-Currently amended) The method of claim ~~θ~~ 42, wherein the insulated storage region has sufficient size to store heated water for all batches of ready mix concrete prepared in a day.

44. (Withdrawn-Currently amended) The method of claim ~~θ~~ 42, wherein the insulated storage region has a capacity of up to about 15,000 gallons.

45. (Withdrawn-Currently amended) The method of claim ~~θ~~ 42, wherein the heated water is heated to a temperature of between about 100°F and 200°F.

46. (Currently amended) A slurry mixer for preparing slurry, the slurry mixer comprising:

a side wall with a lower end and an upper end;

a base wall enclosing the lower end of the side wall and defining a mixing region in which slurry may be prepared;

a top ~~wall~~ cover enclosing the upper end of the side wall;

a first stirring apparatus fixedly mounted in the mixing region, wherein the first stirring apparatus has a plurality of upper mixing members that extend from the ~~upper member~~ top cover; and

a second stirring apparatus rotatably mounted in the mixing region, wherein the second stirring apparatus has a lower support member and a plurality of lower mixing members that extend from the lower support member, wherein the upper mixing members wipe slurry from the lower support member, wherein the lower mixing members wipe slurry from the top wall, and wherein at least one of the lower mixing members fully engage the side wall as the second stirring apparatus is rotated to remove slurry from the side wall.

47. (Currently amended) The slurry mixer of claim 46, wherein at least one of the plurality of ~~lower~~ upper mixing members engages the ~~base wall~~ lower support member as the second stirring apparatus is rotated.

48. (Canceled)

49. (Previously presented) The slurry mixer of claim 46, wherein the upper mixing members are offset from the lower mixing members so that the upper mixing members pass between the lower mixing members as the second stirring apparatus is rotated.

50. (Previously presented) The slurry mixer of claim 49, wherein the upper mixing members and the lower mixing members engage each other as they move past each other to remove slurry therefrom.

51. (Previously presented) The slurry mixer of claim 46, and further comprising a dispensing auger positioned in the mixing region proximate the base wall for dispensing slurry from the mixing region.

52. (Previously presented) The slurry mixer of claim 46, and further comprising a motor operably connected to the second stirring apparatus for rotating the second stirring apparatus.

53. (Canceled)

54. (Previously presented) The slurry mixer of claim 46, wherein the top wall has a cement feed port, a water feed port and an admixture feed port.

55. (Previously presented) The slurry mixer of claim 46, and further comprising a dust collection apparatus operably connected to the slurry mixer.

56. (Previously presented) A method of operating a slurry mixer, the method comprising:

providing a slurry mixer having a substantially cylindrical side wall, a base wall and a top wall, wherein the side wall has a lower end and an upper end, wherein the base wall encloses the lower end of the side wall, wherein the top wall encloses the upper end of the side wall, and wherein the side wall, the base wall and the top wall define a mixing region;

mounting a first stirring apparatus in the mixing region, wherein the first stirring apparatus includes a plurality of upper mixing members that extend from the top wall;

rotatably mounting a second stirring apparatus in the mixing region, wherein the second stirring apparatus includes a lower support member and a plurality of lower mixing members that extend from the lower support member;

feeding slurry components into the mixing region;

rotating the second stirring apparatus in the mixing region to form a slurry from the slurry components;

wiping slurry from the lower support member with the upper mixing members;

wiping slurry from the top wall with the lower mixing members;

and wiping slurry from the side wall with one of the lower mixing members.

57. (Canceled)

58. (Currently amended) The method of claim 56, and further comprising wiping slurry from the lower support member[[s]] with the upper ~~support~~ mixing members.

59. (Previously presented) The method of claim 56, wherein the upper mixing members are offset from the lower mixing members so that the upper mixing members pass between the lower mixing members as the second stirring apparatus is rotated.

60. (Previously presented) The method of claim 56, and further comprising dispensing slurry from the mixing region with a dispensing auger.

Respectfully submitted,

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